

CLAIMS

1. An image coding apparatus comprising:
 - inputting means for inputting a multiplexed stream containing multimedia coding data;
 - separating means for separating a video stream from said multiplexed stream input by said inputting means;
 - converting means for performing a predetermined converting process on said video stream separated by said separating means;
 - generating means for generating additional information indicating that a mismatch will occur when the converted video stream is displayed on the basis of said multimedia coding data; and
 - outputting means for outputting said converted video stream, said multimedia coding data, and said additional information.
2. The image coding apparatus according to claim 1, further comprising:
 - coding means for coding said additional information generated by said generating means as data separate from said multiplexed stream containing said converted video stream.
3. The image coding apparatus according to claim 1, further comprising:
 - coding means for multiplexing said additional information generated by said generating means with said multiplexed stream containing said converted video stream and then coding a multiplexed result.
4. The image coding apparatus according to claim 1, wherein said converting means converts a video stream picture frame parameter.
5. The image coding apparatus according to claim 1, wherein the conversion by said converting means includes at least a process of decoding the video stream separated by said separating means and a process of encoding the decoded video stream.
6. The image coding apparatus according to claim 1, wherein said additional information generated by said generating means contains at least one of original picture frame information and an original screen aspect ratio.

7. The image coding apparatus according to claim 1, wherein said additional information generated by said generating means contains an original video format and a video format after the conversion.

8. The image coding apparatus according to claim 1, wherein said additional information generated by said generating means contains an original screen aspect ratio and a screen aspect ratio after the conversion.

9. The image coding apparatus according to claim 1, wherein said additional information generated by said generating means contains at least one of information indicating whether or not a picture frame of said video stream has been converted by said converting means, information about an original picture frame of said video stream separated by said separating means, and an original screen aspect ratio.

10. An image coding method comprising the steps of:

inputting a multiplexed stream containing multimedia coding data;

separating a video stream from said multiplexed stream input in said inputting step;

performing a predetermined converting process on said video stream separated in said separating step;

generating additional information indicating that a mismatch will occur when the converted video stream is displayed on the basis of said multimedia coding data; and

outputting said converted video stream, said multimedia coding data, and said additional information.

11. The image coding method according to claim 10, further comprising the step of:

coding said additional information generated in said generating step as data separate from said multiplexed stream containing said converted video stream.

12. The image coding method according to claim 10, further comprising:

a coding step of multiplexing said additional information generated in said generating step with said multiplexed stream containing said converted video stream and then coding a multiplexed result.

13. The image coding method according to claim 10,

wherein a video stream picture frame parameter is converted in said converting step.

14. The image coding method according to claim 10, wherein the conversion in said converting step includes at least a process of decoding the video stream separated in said separating step and a process of encoding the decoded video stream.

15. The image coding method according to claim 10, wherein said additional information generated in said generating step contains at least one of original picture frame information and an original screen aspect ratio.

16. The image coding method according to claim 10, wherein said additional information generated in said generating step contains an original video format and a video format after the conversion.

17. The image coding method according to claim 10, wherein said additional information generated in said generating step contains an original screen aspect ratio and a screen aspect ratio after the conversion.

18. The image coding method according to claim 10, wherein said additional information generated in said generating step contains at least one of information indicating whether or not a picture frame of said video stream has been converted in said converting step, information about an original picture frame of said video stream separated in said separating step, and an original screen aspect ratio.

19. A recording medium recorded a computer-readable program, said program comprising the steps of:

inputting a multiplexed stream containing multimedia coding data;

separating a video stream from said multiplexed stream input in said inputting step;

performing a predetermined converting process on said video stream separated in said separating step;

generating additional information indicating that a mismatch will occur when the converted video stream is displayed on the basis of said multimedia coding data; and

outputting said converted video stream, said multimedia coding data, and said additional information.

20. A recording medium recorded a video stream converted by a predetermined conversion process, multimedia coding data, and additional information indicating occurrence of a mismatch at displaying said converted video stream on the basis of said multimedia coding data.

21. The recording medium according to claim 20, wherein said additional information is coded and recorded as data different from a multiplexed stream containing said converted video stream.

22. The recording medium according to claim 20, wherein said additional information is coded and recorded as multiplexed with a multiplexed stream containing said converted video stream.

23. The recording medium according to claim 20, wherein said video stream is converted in its picture frame parameter.

24. The recording medium according to claim 20, wherein said video stream is decoded and then encoded.

25. The recording medium according to claim 20, wherein said additional information contains at least one of original picture frame information and an original screen aspect ratio.

26. The recording medium according to claim 20, wherein said additional information contains information about an original video format and information about a video format after the conversion.

27. The recording medium according to claim 20, wherein said additional information contains information about an original screen aspect ratio and information about a screen aspect ratio after the conversion.

28. The recording medium according to claim 20, wherein said additional information contains at least one of information indicating whether or not a picture frame of said video stream has been converted, information about an original picture frame of said video stream, and information about an original screen aspect ratio.

29. An image decoding apparatus comprising:

inputting means for inputting a multiplexed stream containing multimedia coding data;

separating means for separating a video stream from said multiplexed stream input by said inputting means;

decoding means for decoding said video stream separated by said separating means; and

processing means for performing a predetermined conversion process on said decoded video stream in accordance with additional information indicating occurrence of a mismatch at displaying said decoded video stream on the basis of said multimedia decoding data.

30. The image decoding apparatus according to claim 29, further comprising:

acquiring means for acquiring said additional information from data different from said multiplexed stream.

31. The image decoding apparatus according to claim 29, further comprising:

acquiring means for acquiring said additional information from a multiplexed stream with which said additional information is multiplexed.

32. The image decoding apparatus according to claim 29, wherein said processing means converts a picture frame parameter of said video stream.

33. The image decoding apparatus according to claim 29, wherein the conversion by said processing means includes at least a process of decoding said video stream separated by said separating means and a process of encoding the decoded video stream.

34. The image decoding apparatus according to claim 29, wherein said additional information contains at least one of information about an original picture frame and information about an original screen aspect ratio.

35. The image decoding apparatus according to claim 29, wherein said additional information contains an original video format and information about a video format after the conversion.

36. The image decoding apparatus according to claim 29, wherein said additional information contains information about an original screen aspect ratio and information about a screen aspect ratio after the conversion.

37. The image decoding apparatus according to claim 29, wherein said additional information contains at least one of information indicating whether or not a picture frame of said

video stream has been converted by said converting means, information about an original picture frame of said video stream separated by said separating means, and information about an original screen aspect ratio.

38. An image decoding method comprising the steps of:

inputting a multiplexed stream containing multimedia coding data;

separating a video stream from said multiplexed stream input in said inputting step;

decoding said video stream separated in said separating step; and

performing a predetermined conversion process on said decoded video stream in accordance with additional information indicating occurrence of a mismatch at displaying said decoded video stream on the basis of said multimedia decoding data.

39. The image decoding method according to claim 38, further comprising the step of:

acquiring said additional information from data different from said multiplexed stream.

40. The image decoding method according to claim 38, further comprising the step of:

acquiring said additional information from a multiplexed stream with which said additional information is multiplexed.

41. The image decoding method according to claim 38, wherein a picture frame parameter of said video stream is converted in said processing step.

42. The image decoding method according to claim 38, wherein the conversion in said processing step includes at least a process of decoding said video stream separated in said separating step and a process of encoding the decoded video stream.

43. The image decoding method according to claim 38, wherein said additional information contains at least one of information about an original picture frame and information about an original screen aspect ratio.

44. The image decoding method according to claim 38, wherein said additional information contains an original video

format and information about a video format after the conversion.

45. The image decoding method according to claim 38, wherein said additional information contains information about an original screen aspect ratio and information about a screen aspect ratio after the conversion.

46. The image decoding method according to claim 38, wherein said additional information contains at least one of information indicating whether or not a picture frame of said video stream has been converted in said converting step, information about an original picture frame of said video stream separated in said separating step, and information about an original screen aspect ratio.

47. A recording medium recorded a computer-readable program, said program comprising the steps of:

inputting a multiplexed stream containing multimedia coding data;

separating a video stream from said multiplexed stream input in said inputting step;

decoding said video stream separated in said separating step; and

performing a predetermined conversion process on said decoded video stream in accordance with additional information indicating occurrence of a mismatch at displaying said decoded video stream on the basis of said multimedia decoding data.

48. An image coding apparatus comprising:

inputting means for inputting a multiplexed stream;

separating means for separating a video stream from said multiplexed stream input by said inputting means;

determining means for determining whether or not multimedia coding data is contained in said multiplexed stream input by said inputting means;

generating means, if it is determined by said determining means that said multimedia coding data is contained in said multiplexed stream, for generating coding control information for instructing not to change a display format of said video stream separated by said separating means;

converting means for performing a predetermined conversion process on said video stream separated by said separating means on the basis of said coding control information generated by said generating means; and

multiplexing means for generating a multiplexed stream which contains said video stream converted by said converting means.

49. The image coding apparatus according to claim 48, wherein said generating means instructs not to change any of a picture frame, a video format, and an aspect ratio.

50. An image coding method comprising the steps of:

inputting a multiplexed stream;

separating a video stream from said multiplexed stream input in said inputting step;

determining whether or not multimedia coding data is contained in said multiplexed stream input in said inputting step;

generating coding control information for instructing not to change a display format of said video stream separated in said separating step, if it is determined in said determining step that said multimedia coding data is contained in said multiplexed stream;

performing a predetermined conversion process on said video stream separated in said separating step on the basis of said coding control information generated in said generating step; and

generating a multiplexed stream which contains said video stream converted in said converting step.

51. The image coding method according to claim 50, wherein coding control information for instructing not to change any of a picture frame, a video format, and an aspect ratio is generated in the generating step.

52. A recording medium recorded a computer-readable program, said program comprising the steps of:

inputting a multiplexed stream;

separating a video stream from said multiplexed stream input in said inputting step;

determining whether or not multimedia coding data is contained in said multiplexed stream input in said inputting

step;

generating coding control information for instructing not to change a display format of said video stream separated in said separating step, if it is determined in said determining step that said multimedia coding data is contained in said multiplexed stream;

performing a predetermined conversion process on said video stream separated in said separating step on the basis of said coding control information generated in said generating step; and

generating a multiplexed stream which contains said video stream converted in said converting step.

53. A recording medium recorded coding control information instructing not to change a display format of a video stream and a multiplexed stream containing a video stream on which a predetermined conversion process has been performed on the basis of said coding control information.